

Proposed IWIN Termination Report

Final 3/2006

Executive Summary

An examination of comments received regarding the proposed termination of the IWIN website have demonstrated *NWS should not end services* provided by the IWIN website related to the NWS mission of saving life and property, yet not readily available elsewhere. Additionally, a close review of IWIN uncovered missing information on IWIN as well a large number of policy compliance issues. NWS is also embarking on an effort to consolidate web farms. Therefore, the Office of the Chief Information Officer (OCIO) has replicated the unique services provided by IWIN on a web farm that will be part of the consolidation process and *now recommends moving to these replacement pages*. The IWIN address will continue to be in place for at least several years. Bookmarks to current IWIN pages will be automatically directed to the new policy compliant pages.

NWS will take comments on the replacement pages from April 1 to April 30, 2006 at the following URL:

<http://www.weather.gov/inlr.php>

This process also highlighted how much trouble users experience when trying to find the same product across different WFO websites and provides possible paths that would improve customer satisfaction by making it easier to find NWS-produced information. An additional outcome is a better understanding of the rapid growth and demand for NWS information served in formats usable by mobile devices.

Background

The Internet Weather Information Network (IWIN) was a ground-breaking website operated by the National Weather Service (NWS) since the mid-1990's and represents the first attempt by NWS to present traditional NWS text products in a standard format.

While ground breaking, IWIN first started to show age in 2002, after other NWS websites migrated to a common look and feel and the regional web farms started to also serve more standardized content. During this time frame, usage of IWIN started to drop while usage of other NWS website sky rocketed. Additionally, NWS reorganized the structure of some products and IWIN often did not reflect these changes.

IWIN was first proposed for termination in 2003 in an ad-hoc manner, since no policy yet existed on how to terminate a NWS dissemination service. However, the large number of complaints was taken to heart, along with knowledge that policy was being developed. Clearly, the IWIN pages served a purpose not reproduced elsewhere on NWS websites and NWS should offer similar service if IWIN were to be terminated.

Development of NDS 1-1002, fixed the policy issue. The rotational assignment of LWX ITO Steve Listemaa to OCIO during the summer of 2005 supplied a programming resource to tackle the technical issues.

User Comments

NWS posted announcements on the proposed termination on IWIN and other NWS web pages and also issued a PNS statement on the issue. Information on replacement pages was also provided. From November 1, 2005 until January 31, 2006, 2436 comments were received. Each comment was read by OCIO staff.

OCIO staff responded to 826 of these comments. Factors for responding included:

- If the commenter identified themselves as emergency management staff, media or professional meteorologist;
- If the commenter had a specific question;
- If the commenter pointed out a problem with the replacement pages;
- If the commenter raised a life or property issue.

Of the 826 responses, 184 responded back with additional information, comments or suggestions. This response rate suggests roughly 79 percent were satisfied by the OCIO response.

OCIO has categorized all comments with the following results:

For Termination: 173 7.2%

Against Termination: 1224 51%

Had likely never looked at another NWS website: 360 15%

Mentioned IWIN's display of the PNS and AFD products: 192 8.1%

Mentioned hydro related products: 19 0.8%

Assumed the proposed termination was related to politics: 24 1%

Assumed the termination was for a product (like the zone forecasts): 50 2.1%

Praised the one stop shop nature of IWIN, or referenced difficulty in navigating WFO homepages: 960 24%

Praised the State focus of IWIN: 192 8.0%

Praised the low bandwidth nature of IWIN: 108 4.5%

Appeared to be in the EM field: 48 2%

Appeared to be from a media outlet: 103 4.3%

Comment Follow Up

A number of those commenting had apparently never used other NWS websites. For example, a few comments centered around monitoring of river levels. When these users were pointed to the AHPS pages, the response was 100 percent positive. Other common examples included people looking for rural forecasts who had not used the "Point" forecast pages.

As expected, users find the Public Notice Statement (PNS) and Area Forecast Discussions (AFD) products to be very useful. IWIN pages containing this information have been duplicated and in some cases improved. These pages will be automatically redirected upon shutdown of the current IWIN site.

Hydro related products were sometimes mentioned and often related to specific mention of protection of life and property. These IWIN pages have been duplicated and will be automatically redirected.

A few people thought the termination was related to a recent proposed Senate bill. In each case where a return email address was provided, the commenter had no knowledge of other NWS websites.

Some users thought the termination was for a specific type of NWS product. This was explained in a response when a reply email address was provided.

Many comments were related to the one-stop-shop nature of IWIN. Many of these users traveled on a regular basis or were watching conditions where relatives or property are located. Most of these users specifically commented on how difficult it can be to find a particular product, say the hourly round up product, on different WFO pages. For OCIO, these comments underscore the value of a standardized left menu on WFO and RFC homepages. The one-stop-shop nature of the current IWIN pages has been reproduced and users following bookmarks will be automatically redirected.

A number of comments highlighted the State focus of IWIN. These pages have been duplicated and will be automatically redirected.

A few comments focused on the low bandwidth nature of the IWIN pages and their ease of use with portable devices like Blackberrys and cell phones. OCIO responded by reducing, by half, the download time of replacement pages and or pointing users to the mobile pages offered by Southern Region. The SR mobile pages were highly praised in responses.

OCIO proposes nationalization of these pages in the future as part of the web consolidation project. OCIO additionally notes that SRH has reported rapid growth in the access of the mobile pages in recent months. This trend matches industry predictions for continued growth in public use of mobile devices.

As expected, some users identified themselves as being from the media or emergency managers. A special effort was undertaken to respond to these users, with a positive outcome in most cases. A common comment was from radio stations using the state hourly rounds ups for on-air scripts. In setting up the replacement round-up pages, OCIO found the current process used by NWS to produce the RWR product leaves a lot to be desired and should be reviewed in the future.

A few comments pointed out issues with the replacement pages, such as a request to include New York highway condition statement currently included on IWIN. These requests were fulfilled.

Summary

The customer responses demonstrated how many people use the information presented on IWIN to make daily decisions related to the NWS mission. While the information on IWIN – traditional NWS text products – is available on many other NWS web pages, nowhere else are these products organized as they are on IWIN. The IWIN organization is centered around grouping products by State. This organization is particularly useful for specific sets of NWS customers, such as state emergency managers, media outlets with national or state level interests, mid and long distance travelers and persons with interest like property or assets in other states.

The “one-stop-shop” aspect of the information on IWIN is especially useful for persons who need to check on conditions across the nation. Several media outlets noted they use IWIN to compile reports using products like the Hourly Round Ups or Public Notice Statements. IWIN users correctly noted it is very difficult to find many of these types of products on the Weather Forecast Office pages. While the WFO pages almost always have this information available, the lack of standardized menus makes locating this information very difficult. During the construction of the replacement pages, OCIO noted it was quite difficult to organize the Hourly Round Up (RWR) in an orderly manner. It was difficult to determine which WFO issued what product for what state and at what time.

OCIO has created IWIN equivalent pages running on one of the web farms slated to be part of the planned consolidation. The replacement pages were designed in a manner that will allow these pages to be easily consolidated into the other target farms and provide an operational level of redundancy in the future.

Additional functionality was provided where opportunities arose and comments suggested. The replacement pages now provide an interface to NWS text products by type. This is new functionality not provided previously on either IWIN or other NWS website. From early on, it was understood a number of customers were “screen scraping” IWIN in efforts to gather NWS products. While effective, this method of obtaining the data is limited because changes to the page's look and feel will most likely break the software used to collect the data.

To help this issue, listings of active watch, warnings and advisories are now provided in industry standard extensible markup language (XML) formats called RSS (Real Simple Syndication) and CAP (Common Alert Protocol). Since introduced more than a year ago, the RSS and CAP feeds of data have become some of the most commonly downloaded products on the NWS HQ web farm. Use of these formats will allow NWS to adapt the web pages to future policy changes, but still allow customers to harvest NWS information and quickly adapt it for their use. Exchanges were held with two IWIN customers who had shifted to the XML feeds, but also desired to receive other products, including Local Storm Reports, Public Notice Statements, Hourly Round Ups and similar products in an XML format.

During the course of examining the comments and creating the replacement pages, a

number of issues with the IWIN website were uncovered that ranged beyond just the look, feel and out of policy issues. These included:

- Links to sections of the website that either did not work or didn't exist. An example are pages for “world” weather that are non-functional;
- Information that was out of date. Example includes a precip graphic on the IWIN homepage that hasn't been updated since 2004;
- Missing information. An example is the IWIN page for Area Forecast Discussions (AFD) for Maryland only included AFD's from the Washington-Baltimore Office, even though two other offices also cover parts of Maryland.

Additionally, OCIO has already benefited in having the IWIN replacement pages on the HQ web farm. During the February, 2006, winter storm, when the ERH web farm was off line for several hours due to weather related issues, OCIO was able to stand up a redirection page that directed uses to the IWIN-like state pages that contain watch, warnings, forecasts, other NWS text products as well as links to radar and satellite images that were unaffected by the outage.

Recommendations

OCIO recommends:

- NWS replace IWIN with new web pages constructed as a result of the comments received during the termination comment period;
- NWS accept comments on the replacement pages from April 1 to April 30, 2006;
- Provide a copy of this report on the IWIN replacement/comment page;
- Propose to make the technical changes needed to automatically redirect IWIN pages to the replacement pages starting July 1, 2006.

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03/06